

Application No. 09/925,881
Amendment dated July 20, 2004
Reply to Office Action dated April 20, 2004

REMARKS

Applicants have carefully reviewed the Office Action mailed on April 20, 2004. Applicants respectfully traverse all objections, rejections, and assertions made by the Examiner. Claims 25 and 30-34 remain pending.

Claims 25, 30-31, and 34 are rejected under 35 U.S.C. §102(b) as being anticipated by Chan in U.S. Patent No. 5,234,002. The Examiner indicated that Chan discloses a first wire (10) with a female threaded member (18), a second wire (11) with a male thread, and that the male thread is adapted to deform when the male thread threadingly engages the female thread. We disagree.

Claim 25 recites a number of structural elements. For example, claim 25 includes:
a first wire including a body member comprising a wall defining a lumen, and a female threaded member disposed within the lumen proximate a first end of the body member.

Figure 31 is illustrative of one example of this structure. For example, Figure 31 depicts a first wire 662 having a body member 664 comprising a wall 668 defining a lumen 672, and a female thread 670 disposed within the lumen. Page 17, lines 11-13. Other figures depict similar structures. Please notice that female thread 670 has the universally understood form of a female thread. This form is generally defined by a groove that is formed along an inner surface (i.e., along the inner surface of wall 668) of a tubular structure that is capable of threadably connecting with the corresponding male thread. A female thread is akin to the thread of a nut.

Chan discloses an extension wire 11 with a tubular member 17 attached thereto. The tubular member 17 is shown to have female threads 18. Chan at column 4, lines 40-43; Figure 2. The Examiner indicated on page 2 of the office action that Figure 2 depicts that guidewire 10 has female threads 18. This interpretation of Figure 2 is incorrect. First, the Examiner's interpretation does not follow the universally accepted definition of a female thread. Thus, it appears as though the Examiner has confused the distinction (for threads) between male and female. Second, the Examiner interpretation goes directly against what is

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disclosed by Chan in the specification. In particular, Chan discloses that "[t]he distal end 16 of the extension wire 11 has a tubular member 17 with internal female threads". Chan at column 4, lines 40-43. The only rational interpretation of Chan is that extension wire 11 is connected to tubular member 17 that has female threads 18.

Claim 25 goes on to recite:

a second wire including a second body member having a second end,
and an engagement structure adapted to threadingly engage the female thread
of the first wire disposed about the body member of the second wire proximate
the second end of the second wire.

Again, Figure 31 is useful for illustration. For example, Figure 31 depicts a second wire 674 including a second body member 676 and an engagement structure. Page 17, lines 14-16. Other figures depict similar structures.

The engagement structure is recited in claim 25 as:

wherein the engagement structure is a male thread disposed about the
body member of the second wire proximate the second end thereof ...

Thus, the engagement structure is, for example, a male thread 680 that is adapted to threadingly engage female thread 670 as seen in Figure 31. Page 17, lines 16-17. Other figures depict similar structures. Please notice that the male thread 680 has the universally accepted form of a male thread. This form is generally defined by an outwardly projecting or raised groove formed on the exterior of surface of a shaft (e.g., the exterior surface of second wire 674). A male thread is akin to the thread of a screw or bolt.

Chan discloses a guidewire 10 with male threads 15. Chan at column 4, lines 38-39; Figure 2. Again, the Examiner has apparently misinterpreted Chan because on page 2 of the office action, the Examiner indicated that extension wire 11 includes an engagement structure 15 (i.e., male threads 15). This interpretation makes no sense whatsoever. First, the male threads 15 are not actually directly connected to the extension wire 11. Therefore, it is beyond comprehension how male threads 15 on extension wire 11 could possibly meet the above-recited limitation in claim 25 of a second wire including an engagement structure.

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Second, Chan directly discloses that, in fact, guidewire 10 includes male threads 15. Chan at column 4, lines 38-39; Figure 2. The Examiner's contrary interpretation is not only illogical, it goes against the express teachings of Chan. The only rational interpretation of Chan is that guidewire 10 includes male threads 15.

Finally, claim 25 further recites that:

and wherein a portion of the male thread of the first wire is adapted to deform
when the male thread threadingly engages the female thread of the first wire.

The deformable portion 684 of the male thread 680 can be seen, for example, in Figure 31. Other figures depict similar structures. This claimed structural limitation provides the claimed guidewire system with a number of desirable characteristics as described in Applicants' specification. Chan fails to disclose this limitation because nothing remotely related to the male thread 15 in Chan is in any way deformable. The Examiner indicated on page 2 of the office action that a portion of the male thread is adapted to deform and refers to column 3, lines 50-65 of Chan. Applicants fail to understand the Examiner's logic. The Examiner's statement and the cited passage in Chan have no bearing on each other. For example, the cited passage describes how connecting element 13 is connected to tubular member 17. The point of this passage is that connecting element 13 can be attached to tubular member 17 so that guidewire 10 can be more easily threaded with extension wire 11. Nothing in the passage is related to a deformable portion of a male thread. Nowhere else in Chan is any discussion found that relates to a deformable male thread.

The Examiner also indicated that the phrase "adapted to deform" is an intended use. We disagree. "Adapted to deform" is not describing an intended use, but rather is a structural limitation not taught or suggested by Chan. A thread that is "adapted to deform" is a thread that has a changeable structure that, in fact, changes under the appropriate circumstance. Although the claimed threads can perform a function, they only do so because of the particular structure that they have. Accordingly, the limitation "adapted to deform" is not a functional limitation but rather a structural limitation. Chan does not teach or suggest a structure as claimed - i.e., Chan does not teach or suggest a male thread that includes a portion that is adapted to deform. The Examiner asserts that Chan could perform this

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function, but nowhere is the claimed structure taught or suggested. Therefore, Chan fails to disclose or teach a recited claim limitation.

The above remarks indicate that Chan fails to disclose the limitations recited in claim 25. Accordingly, Chan cannot anticipate claim 25. Applicants hereby request that the Examiner withdraw the rejection under 35 U.S.C. §102(b) in due course.

Claims 30, 31, and 34 are similarly patentable over Chan. For example, independent claims 30 and 34 recite a male thread having a deformable portion. In particular, claim 30 recites:

a second wire member including body member having a male thread disposed about the body member proximate an end of the second wire member, the male thread adapted to threadingly engage the female thread and including a first portion and a second portion which is different from the first portion, the second portion adapted to be more deformable than the first portion when the male thread is threaded into the female thread.

As described above, Chan does not disclose that the male thread 15 is in any way deformable or adapted to be more deformable. As stated above, these claim limitations are not intended uses but rather are structural in nature. Chan fails to teach or suggest any structure capable of meeting these limitations. In addition, the Examiner indicated on page 3 of the office action that Chan discloses at column 3, lines 50-65 that Chan discloses male threads with two portions that are different from one another. Again, Applicants fail to understand how the Examiner has correlated this passage from the specification of Chan with the asserted statement. Instead, Applicants insist that the cited passage describes that female threads are created by dimpling the tubular member 17 against the male threads 15. Therefore, neither the male nor the female threads in Chan are adapted to deform or are deformable. Instead, the female threads are, in essence, defined by deforming the tubular member 17. Thus, the cited passage has little or no bearing on the claimed invention. Accordingly, claims 30 and 34 are clearly distinguishable from Chan. Because claim 31 depends from allowable claim 30, it is also patentable based on the above remarks and because it adds significant elements to

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distinguish it from the art. Applicants respectfully submit that these remarks overcome the rejection under 35 U.S.C. §102(b).

Claims 32-33 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chan. As described above, claim 30 is distinguishable from Chan. Because claims 32-33 depend from allowable claim 30, they are also patentable based on these remarks and because they add significant elements to distinguish them from the art. Applicants respectfully submit that these remarks overcome the rejection under 35 U.S.C. §103(a).

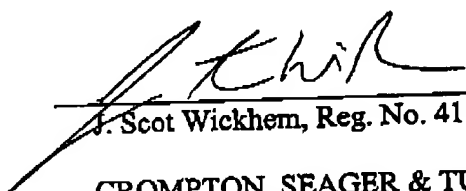
Reexamination and reconsideration are requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is also respectfully requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

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By their attorney,

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